



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,083	11/05/2003	Doo-seop Eom	Q76216	6301
23373	7590	08/10/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			FIGUEROA, MARISOL	
		ART UNIT		PAPER NUMBER
				2681

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/701,083	EOM ET AL.
	Examiner	Art Unit
	Marisol Figueroa	2681

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 05 November 2003.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 05 November 2003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-5, 7-11, and 13** are rejected under 35 U.S.C. 102(e) as being anticipated by **Melpignano et al. U.S. Publication No. 2003/0003912 A1.**

**Regarding claims 1 and 8,** Melpignano discloses a wireless communication system, comprising:

a first communication device (Access Point AP1) for carrying out an inquiry and paging with respect to a wireless communication device (Mobile Terminal MT) located within a communication allowance range (P.0060; P.0075; when the mobile terminal is located within the range of an access point or Bluetooth device, it is found by a discovery/inquiry procedure according to Bluetooth standards), and starting a connection with the wireless communication device (P.0080, lines 1-5); and

a second communication device (Access Point AP2) for receiving and transmitting data with the wireless communication device (Mobile Terminal MT) when the wireless communication device connected with the first communication device is cut off by a hard hand-off (P.0019, lines 1-6; P.0092, lines 1-4; P.0095, lines 1-7; P.0100-P.0102; the mobile terminal sends a handoff request to its currently connected AP1, the AP1 transmits a multicast page to its neighbors access points AP2,

AP3 which start paging the mobile terminal and the mobile terminal responds to the closest access point AP2);

wherein the first communication device, if connected with the wireless communication device, transmits to the second communication device information on an address and a clock of the wireless communication device which are determined based on the inquiry (P.0014, lines 8-11; P.0100; P.0101, lines 1-5; the AP1 still connected with the mobile terminal and after receiving a handoff request from it, the AP1 transmits paging information about the mobile terminal to the neighbor AP's, it is inherent to recognize that this paging information was acquired in a previous page inquiry carried by the AP1 to the MT); and if the first communication device is disconnected with the wireless communication device, the second communication device carries out paging with respect to the wireless communication device based on the received information on the address and clock to start a connection with the wireless communication device (P.0102-0103).

**Regarding claims 2 and 9,** Melpignano discloses the wireless communication system as claimed in claim 1, wherein the first communication device and the second communication device are connected by a wire network (P.0059, lines 1-12).

**Regarding claims 3 and 10,** Melpignano discloses the wireless communication system as claimed in claim 2, wherein the first communication device, the second communication device, and the wireless communication device are respectively provided with a Bluetooth system (P.0013, lines 4-8; P.0060, lines 1-3).

**Regarding claims 4 and 11,** Melpignano discloses the wireless communication system as claimed in claim 2, wherein the first communication device, after being connected with the wireless communication device, checks a connection state with the wireless communication device at every predetermined period (P.0092; if the mobile terminal does not have the capability to measure the

link quality, the access point initiates the handoff; it is common knowledge that this measurements are made periodically), and, if the first communication device is disconnected from the wireless communication device, the second communication device is instructed to perform the paging with respect to the wireless communication device (P.0100-0102).

**Regarding claim 5**, Melpignano discloses the wireless communication system as claimed in claim 4, wherein the second communication device is instructed by the first communication device (P.0100; P.0102; the AP1 informs its neighbors AP's of a handoff request therefore starting paging the mobile terminal).

**Regarding claims 7 and 13**, Melpignano discloses the wireless communication system as claimed in claim 4, wherein the wireless communication device scans the paging carried out by the second communication device (P.0093; P.0100-0102; the mobile terminal enters into a continuous page scan after the handoff request).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 6 and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Melpignano et al.** in view of **Mandhyan et al. U.S. Publication No. 2003/0054767 A1**.

**Regarding claims 6 and 12**, Melpignano discloses the wireless communication system as claimed in claim 4, however fails to disclose wherein data packets received and transmitted after the

connection of the first communication device with the wireless communication device comprise an activation address indicating an activation state of the wireless communication device, and if the activation address is not received through a time slot of a predetermined period allocated to the wireless communication device, the first communication device decides that the connection with the wireless communication device is cut off. Mandhyan teaches a method for establishing network connections in a piconet (P.0024; P.0039) in where a master unit sends inquiry packets and receives an inquiry reply; e.g. address and clock of the discovered devices. In such connection procedure, when a slave unit responds, it enters in a slave response substate, e.g. active mode, and if the slave responds within a timeout period it is connected state with the master, however if no response is made before the timeout period no connection is made (P.0050-0052). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to establish a predetermined period for a response as taught by Mandhyan, in order for the Bluetooth devices to be awake at predetermined periods of time thus saving power in the devices.

***Prior Art of Record***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- (a) **Davies et al.** (US 6,816,730 B2): Message Handover for Networked Beacons
- (b) **Watanabe et al.** (US 6,834,192 B1): Method, and Associated Apparatus, for Effectuating Handover of Communication in a Bluetooth, or Other, Radio Communication System

***Conclusion***

Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

**Commissioner for Patents**  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Marisol Figueroa

  
RAFAEL PEREZ-GUTIERREZ  
PATENT EXAMINER  
8/3/05